

21. (Twice Amended) An electrical component assembly comprising:
a substrate having a plurality of electrical contact sites on a surface thereof; and
a plurality of electrically conductive hard particles positioned on the substrate, such
that each of the electrical contact sites has at least one electrically conductive hard particle
associated therewith, wherein

the at least one electrically conductive hard particle is affixed, without an adhesive, in
direct contact with a conductive surface of its associated electrical contact site.

26. (Twice Amended) An electrical component assembly comprising:
a substrate having a plurality of electrical contact sites on a surface thereof;
a plurality of electrically conductive hard particles positioned on the substrate; and
a thin layer of metal plated on each of the electrical contact sites, wherein
the thin layer of metal affixes the at least one electrically conductive hard particle to a
conductive surface of its associated electrical contact site,

each of the electrical contact sites has at least one electrically conductive hard particle
associated therewith, and

the at least one electrically conductive hard particle is affixed in direct contact with
the conductive surface of its associated electrical contact site.

c3 48. (Twice Amended) A printed circuit interconnection assembly comprising:
a printed circuit board substrate having a plurality of electrical contact sites on a
surface thereof; and

a plurality of electrically conductive hard particles positioned on the substrate, such
that each of the plurality of electrical contact sites has at least one electrically conductive
hard particle associated therewith, wherein the at least one electrically conductive hard
particle is affixed, without an adhesive, in direct contact with a conductive surface of its
associated electrical contact site.

c4 51. (Twice Amended) A printed circuit interconnection assembly comprising:
a printed circuit board substrate having a plurality of electrical contact sites on a
surface thereof; and

a plurality of electrically conductive hard particles positioned on the substrate
a thin metal layer plated on each of the electrical contact sites, wherein

C⁹
cont. the thin metal layer affixes the at least one electrically conductive hard particle to a conductive surface of its associated electrical contact site,

each of the plurality of electrical contact sites has at least one electrically conductive hard particle associated therewith, and

the at least one electrically conductive hard particle is affixed in direct contact with the conductive surface of its associated electrical contact site.

C⁵
95. (Amended) An electrical component assembly as described in claim 26, wherein each of the plurality of electrically conductive hard particles comprises a nonconductive hard particle core with an outer surface coated by a conductive material.

96. (Amended) An electrical component assembly as described in claim 26, wherein each of the plurality of electrically conductive hard particles comprises a diamond particle core with an outer surface coated by a layer of nickel.

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101. (New) An electrical component assembly as described in claim 26, wherein the thin metal layer comprises a layer of nickel.

102. (New) An electrical component assembly as described in claim 26 further comprising an non-conductive adhesive material applied to at least selected portions of the surface of the substrate and the plurality of hard particles.

103. (New) An electrical component assembly as described in claim 102, wherein the non-conductive adhesive covers substantially all of the substrate.

104. (New) An electrical component assembly as described in claim 102, wherein the non-conductive adhesive covers selected portions of the substrate.

105. (New) An electrical component assembly as described in claim 26, wherein the substrate comprises a semiconductor chip.

106. (New) A printed circuit interconnection assembly as described in claim 51 further comprising a non-conductive adhesive applied to at least selected portions of the surface of the substrate and to the plurality of hard particles.

107. (New) A printed circuit interconnection assembly as described in claim 105, wherein the non-conductive adhesive covers substantially all of the substrate.

108. (New) A printed circuit interconnection assembly as described in claim 51, wherein the printed circuit board substrate comprises a flexible printed circuit board substrate.

109. (New) A printed circuit interconnection assembly as described in claim 51, wherein the printed circuit board substrate comprises a smart card chip module.

110. (New) A printed circuit interconnection assembly as described in claim 51, wherein the printed circuit board substrate comprises a smart label.

REMARKS

Applicants initially note that their information disclosure statement dated 27 November 2001 has still not yet been considered by the Office. Consideration of these additional references disclosed by Applicants in this information disclosure statement is requested.

Explanation of Amendments:

Claim 21 is amended to clarify that the nature of the claimed substrate does not include an adhesive.

Claim 26 is amended to create a new independent claim including all of the limitations of claim 21 before the amendment to claim 21 requested herein. The scope of the claim therefore remains unchanged by this amendment.

Claim 48 is amended to clarify that the nature of the claimed printed circuit interconnection assembly does not include an adhesive.

Claim 51 is amended to create a new independent claim including all of the limitations of claim 48 before the amendment to claim 48 requested herein. The scope of the claim therefore remains unchanged by this amendment.

Claims 95 and 96 are amended to change their dependency from claim 21 to claim 26.

New claims 101-110 provide dependent claims to newly independent claims 26 and 51.